

IN THE CLAIMS:

Please amend claims 37, 65, 71, and 76 as follows.

1-36. (Cancelled)

37. (Currently Amended) An apparatus, comprising:

a light guide ~~having~~ comprising a surface configured to internally reflect a generated light signal from a transmitter to a receiver; and

an actuator ~~having~~ comprising an actuator surface, the actuator surface ~~having~~ comprising at least a deformable portion which is movable between a first position spaced apart from a portion of said light guide surface, with a gas or fluid ~~therebetween~~ between the actuator surface and the light guide surface, and a second position which is in contact with the portion of the light guide surface,

wherein the portion of the light guide surface has a higher refractive index than the portion of the actuator surface, ~~and~~

wherein the portion of the actuator surface has a different refractive index than the gas or fluid, and

wherein, ~~in use~~ when the portion of the actuator surface is at the second position in contact with the portion of the light guide surface, the relative refractive index ~~is changed~~ at ~~a~~ the contacted portion of the light guide surface is increased and an amount of reflected light is decreased, thereby altering the light signal received by the receiver, ~~and~~

~~wherein the portion of the actuator surface is deformable.~~

38. (Previously Presented) The apparatus according to claim 37, wherein the receiver is configured to output a signal indicative of a position of the contacted portion of the light guide surface.

39. (Previously Presented) The apparatus according to claim 37, wherein the receiver is configured to use the received signal to control a position of an element.

40. (Previously Presented) The apparatus according to claim 37, wherein the second position is at a selected one of a plurality of portions on the surface of the light guide.

41. (Previously Presented) The apparatus according to claim 37, wherein a plurality of transmitters is provided.

42. (Previously Presented) The apparatus according to claim 41, wherein the transmitters are configured to pulse alternatively.

43. (Previously Presented) The apparatus according to claim 37, wherein a plurality of receivers is provided.

44. (Previously Presented) The apparatus according to claim 37, wherein the transmitter comprises a light-emitting diode.

45. (Previously Presented) The apparatus according to claim 37, wherein the receiver comprises a photodiode.

46. (Previously Presented) The apparatus according to claim 37, wherein four transmitters and a single receiver are provided in a cross configuration having four corners and a center, each one of the transmitters being disposed at one of the corners and the receiver being disposed at the center.

47. (Previously Presented) The apparatus according to claim 37, wherein the light guide includes an optical grating.

48. (Previously Presented) The apparatus according to claim 37, wherein said surface of said actuator comprises a hemispherical surface.

49. (Previously Presented) The apparatus according to claim 37, wherein said surface of said actuator is supported by one or more side walls.

50. (Previously Presented) The apparatus according to claim 49, wherein said one or more side walls are deformable.

51. (Cancelled)

52. (Previously Presented) The apparatus according to claim 37, wherein said actuator has an upper portion in the form of a stick for actuation by a user.

53. (Previously Presented) The apparatus according to claim 37, wherein said actuator comprises an arcuate disk disposed on said surface of said actuator.

54. (Previously Presented) The apparatus according to claim 37, wherein the transmitter and the receiver are disposed in a layer on an opposite side of said light guide to said actuator.

55. (Previously Presented) The apparatus according to claim 37, further comprising a processor configured to process the signal received by the receiver and output a control signal to control a position of an element.

56. (Previously Presented) The apparatus according to claim 37, further comprising a display configured to display an element, wherein in use the position of the element on the display is controlled.

57. (Previously Presented) The apparatus according to claim 37, wherein said received signal is used to produce a radio signal to control a radio controlled device.

58. (Previously Presented) The apparatus according to claim 37, wherein the actuator surface is exposed at the exterior of the apparatus.

59. (Previously Presented) The apparatus according to claim 37, wherein the actuator surface is manually actuatable by a user of the apparatus.

60. (Previously Presented) The apparatus according to claim 37, wherein the apparatus comprises a hand held electronic device.

61-62. (Cancelled)

63. (Previously Presented) The apparatus according to claim 37, wherein the actuator surface is actuatable by a user via a key of the apparatus.

64. (Previously Presented) The apparatus according to claim 63, wherein the key comprises part of a keypad.

65. (Currently Amended) A method, comprising:
reflecting a generated light signal off a surface,
wherein a relative refractive index between materials on either side of the surface is ~~changed~~ increased by contacting the surface with a deformable actuator, which has a lower refractive index than the surface, thereby altering the reflected light signal, the reflected light signal being received and used to control a position of an element.

66-67. (Cancelled)

68. (Previously Presented) The apparatus according to claim 37, wherein said actuator comprises a key or button.

69. (Previously Presented) The apparatus according to claim 37, wherein said apparatus further comprises a key configured to move said actuator in use.

70. (Previously Presented) The apparatus according to claim 68, wherein said apparatus comprises a plurality of keys.

71. (Currently Amended) An apparatus, comprising:

light guiding means for guiding light, said light guiding means ~~having~~ comprising a surface for internally reflecting a generated light signal from transmitting means to receiving means; and

actuating means for actuating, said actuating means ~~having~~ comprising a deformable surface with at least a portion of which is movable between a first position spaced apart from a portion of the surface of the light guiding means, with a gas or fluid therebetween, and a second position in contact with the portion of the light guide surface, the portion of the surface of the light guiding means having a higher refractive index than the portion of the deformable actuator surface, and the portion of the deformable actuator surface having a different refractive index than the gas or fluid,

wherein, when the portion of the deformable surface is at the second position in contact with the portion of the light guide surface,~~in use~~ the relative refractive index is ~~changed~~ at the contacted portion of the light guide surface is increased and an amount of light reflected is decreased, thereby altering the light signal received by the receiving means.

72. (Previously Presented) The method according to claim 65, further comprising:

outputting a signal indicative of a position of a contacted portion of the surface.

73. (Previously Presented) The method according to claim 65, further comprising:

processing the signal received; and

outputting a control signal to control the position of the element.

74. (Previously Presented) The method according to claim 65, further comprising:

displaying the element, wherein in use the position of the element on a display is controlled.

75. (Previously Presented) The method according to claim 65, wherein said received signal is used to produce a radio signal to control a radio controlled device.

76. (Currently Amended) An apparatus, comprising:

a light guide ~~having~~ comprising a surface configured to internally reflect a generated light signal from a transmitter to a receiver, the light guide being configured to be contacted at said surface by a deformable actuator having a lower refractive index than said surface,

wherein, when said surface is contacted by the deformable actuator ~~in use~~, a relative refractive index ~~is changed~~ at said surface ~~when contacted by the deformable actuator~~ is increased, thereby altering the light signal received by the receiver.